

What is claimed is:

1. A method for auditing a database comprising a plurality of records, said records each being accessible through at least one of a plurality of independent modules, said method comprising the steps of:

a) maintaining a set of additive audit data in each of said modules;

b) controlling said modules so that each module increments a set of audit data maintained in said module when a record is accessed through said module;

c) summing said sets of audit data to generate system audit data; and

d) verifying said database's integrity against said system audit data.

2. A method as described in claim 1 comprising the further steps of:

a) sending a user request for access to a record and said requested record to a selected one of said modules; and

b) said selected module updating said requested record in accordance with said request .

*SAC* 3. A method as described in claim 2 wherein said selected module incorporates encrypted information in said record to prevent generation of fraudulent records.

4. A method as described in claim 3 wherein said request

includes a request for a digital postal indicium and comprises the further steps of:

a) controlling said selected module to generate and return to said requesting user a digital postal indicium in accordance with said request; and

b) controlling said selected module to update said requested record in accordance with said request.

5. A method as described in claim 2 wherein said selected module incorporates encrypted information in said audit data to authenticate said audit data.

6. A method as described in claim 2 wherein said selected module incorporates time information in said audit data.

7. A method as described in claim 1 comprising the further step of providing security against tampering for each of said modules.

8. A method as described in claim 1 wherein said sets of audit data comprise increments of a linear error correcting code for correcting a field of said records, whereby said audit data can be summed to generate a system error correcting code to correct said field of said records.

9. A method as described in claim 8 comprising the further steps of:

a) sending a user request for access to a record and said requested record to a selected one of said modules; and

b) said selected module updating said requested record in accordance with said request .

10. A method as described in claim 9 wherein said request includes a request for a digital postal indicium and comprising the further steps of:

a) controlling said selected module to generate and return to said requesting user a digital postal indicium in accordance with said request; and

b) controlling said selected module to update said requested record in accordance with said request.

11. A method as described in claim 10 wherein said corrected field contains a total postage amount for the corresponding record.

12. A method as described in claim 10 wherein said corrected field contains a total number of indica dispensed for the corresponding record.

13. A method as described in claim 8 wherein said sets of audit data further comprise arithmetic totals for values stored in said field of said records, whereby arithmetic sums of said values across said modules can be compared with arithmetic sums across said records, whereby numbers of errors greater than the number which can be detected by said system error correcting code can be detected.

14. A method as described in claim 13 wherein said field contains a total postage amount or a total number of indicia dispensed.

15. A database system comprising:

a) a data store storing a database comprising a plurality of records;

b) a server maintaining said records;

c) a plurality of independent modules providing access to said records;

wherein

d) said modules are programmed to maintain a set of additive audit data in each of said modules and increment a set of audit data maintained in one of said modules when a record is accessed through said one module;

e) said server is programmed to sum said sets of audit data to generate system audit data and verify said database's integrity against said system audit data.

16. A system as described in claim 15 wherein:

a) said server is further programmed to receive user requests for access and send said user request and said requested record to a selected one of said modules; and

b) said modules are further programmed so that said selected module updates said requested record in accordance with said request .

17. A system as described in claim 16 wherein said modules are further programmed so that said selected module incorporates encrypted information in said record to prevent generation of fraudulent records.

18. A system as described in claim 16 wherein said selected module incorporates encrypted information in said audit data to authenticate said audit data.

19. A system as described in claim 16 wherein said selected module incorporates time information in said audit data.

20. A system as described in claim 17 wherein said request includes a request for a digital postal indicium and wherein said modules are further programmed so that said selected module generates and returns to said requesting user a digital postal indicium in accordance with said request; and updates said requested record in accordance with said request.

21. A system as described in claim 15 wherein each of said modules is physically secured against tampering.

22. A system as described in claim 15 wherein said sets of audit data comprise increments of a linear error correcting code for correcting a field of said records, whereby said audit data can be summed by said server to generate a system error correcting code to correct said field of said records.

23. A system as described in claim 22 wherein said modules are further programmed so that said selected module incorporates encrypted information in said record to prevent generation of fraudulent records.

24. A system as described in claim 23 wherein said request includes a request for a digital postal indicium and wherein said modules are further programmed so that said selected module generates and returns to said requesting user a digital postal indicium in accordance with said request; and updates said requested record in accordance with said request.

25. A system as described in claim 24 wherein said corrected field contains a total postage amount for the corresponding record.

26. A system as described in claim 24 wherein said corrected field contains a total number of indicia dispensed for the corresponding record.

27. A system as described in claim 22 wherein said sets of audit data further comprise arithmetic totals for values stored in said field of said records, whereby arithmetic sums of said values across said modules can be compared with arithmetic sums across said records, whereby numbers of errors greater than the number which can be detected by said system error correcting code can be detected.

28. A system as described in claim 27 wherein said field contains a total postage amount or a total number of indicia dispensed.

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